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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,875	03/30/2004	PEI-MING SHAN	12304-US-PA	2874

31561 7590 04/10/2007  
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE  
7 FLOOR-1, NO. 100  
ROOSEVELT ROAD, SECTION 2  
TAIPEI, 100  
TAIWAN

EXAMINER
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YENKE, BRIAN P

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/10/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/708,875

**Applicant(s)**

SHAN ET AL.

**Examiner**

BRIAN P. YENKE

**Art Unit**

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Amendment (29 Jan 07).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,8,10 and 11 is/are rejected.
- 7) ☒ Claim(s) 6 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 29 January 2007 have been fully considered but they are not persuasive.

#### ***Applicant's Arguments***

- a) Applicant states that Kim (978) and Parikh (719) disclose systems pertaining to interlaced to progressive conversion—and thus do not disclose the claimed 3D comb filter.

#### ***Examiner's Response***

- a) The examiner agrees that the above references disclose interlaced to progressive conversion, however Kim (978) which was utilized in the rejection disclosed a 3D comb filter system. The examiner's position in the rejection is in prior art it is known to evaluate more than two pixel values when ascertaining the status (motion/still) of an image. The applicant's own admitted prior art (Fig 3a) discloses a system, which detects the status using (Fm and Fm+1), wherein the applicant's invention is also utilizing (Fm-1 and Fm-2), thus the examiner's premise was the use of additional points/pixels (i.e. Fm-1 and Fm-2) provide no unexpected results. In the event the applicant disagrees, the examiner would like the applicant to clarify/state why one skilled in the art would not have been able to use more than (Fm and Fm+1) in calculating the status of the image in order to expedite prosecution, and how the applicant was able to overcome such.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2a. Claims 1, 7-8 and 10-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al., US 5,990,978 in view of Kim et al., US 6,822,691 and Parikh US 6,414,719 (Fig 3).

In considering claims 1 and 10-11,

Kim discloses a motion detection scheme (4) (Figs 1-5) which detects the amounts of motion within an image **before performing** Y/C separation, where the sampling is performed a received composite video signal.

However, Kim only discloses determining the motion/still status of the signal using the present and previous (m-1) frames. The concept of using the additional next frame and previous(m-2) frames are conventional options available to the user/designer in determining how many frames the detection process should incorporate, where a larger number of frames would obviously require more computations, but at the same time provide a more precise motion determination as would be expected.

The examiner incorporates Kim et al. (US 6,822,691) which discloses the concept of determining/detection the amount of motion by using the claimed next, current, previous (m-1) and previous (m-2) frames (Fig 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kim which discloses motion determination using the present/previous frame, by also including the next and previous (m-2) frames as done conventionally (Kim et al), in order to provide an even more accurate determination on the amount/detection of motion, which would ultimately provide the user a better displayed image.

The combination of Kim/Kim et al., does not disclose the concept of averaging the differences to obtain the motion factor.

Kim discloses a system which computes two differences and the determination of motion is based upon those results. Kim et al, discloses a system which computes a plurality of differences in order to analyze the amount of motion in the image, wherein differences between different frames (i.e. current and m-2 and previous (m-1) and next are computed).

The concept of averaging motion values in order to ascertain the status (still/motion) of the signal is conventional in the art, since an average accounts for all the computed values in determining the status.

The examiner incorporates Parikh, US 6,414,719 (Fig 3) which discloses system which averages the computed motion value differences in determining the amount of motion within an image.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kim/Kim which discloses a system, including a 3D comb filter to evaluate pixels from multiple fields/frames in ascertaining the amount of motion, by average all motion values computed as done by Parikh in order to provide the status (motion/still) of the examined area.

In considering claims 7 and 8,

The combination above, does not recite the conventional practice of selecting/detecting the minimum of the averages. This concept is well known in the art, since the smallest motion value selected from a group of values, provides the unit with the least amount of change between pixels. In the event the applicant traverses such notice, the examiner requests the applicant to review the references cited (most notably US 5,703,968 and US 6,239,842).

2b. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al., US 5,990,978 in view of Kim et al., US 6,822,691, and Parikh US 6,414,719 and AAPA (applicant's admitted prior art).

Regarding claims 3-4,

Neither Kim nor Kim et al nor Parikh, disclose the conventional determining of the composite video signal being NTSC and the sampling step as recited.

However this is conventional practice in the art as recited by applicant's admitted prior art (Fig 3 and associated description), therefore since Kim discloses a 3d comb filter processing a received NTSC signal it would be obvious to sample such as done conventionally, in order to sample at the 4 times the

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subcarrier and when the subcarrier phase is within the conventional range. For claim 4, refer to claim 2 above.

Regarding claim 5,

The rejection is the same as claim 3, only the signal is now PAL which is also disclosed by AAPA as being Prior Art.

***Allowable Subject Matter***

3. Claims 6 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (571)272-7359. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, David L. Ometz, can be reached at (571)272-7593.

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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(571)-273-8300**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-HELP.

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(FAX) 703-305-7786

(TDD) 703-305-7785

An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.

For other technical patent information needs, the Patent Assistance Center can be reached through customer service representatives at the above numbers, Monday through Friday (except federal holidays) from 8:30 a.m. to 5:00 p.m. EST/EDT.

The Patent Electronic Business Center (EBC) allows USPTO customers to retrieve data, check the status of pending actions, and submit information and applications. The tools currently available in the Patent EBC are Patent Application Information Retrieval (PAIR) and the Electronic Filing System (EFS). PAIR (<http://pair.uspto.gov>) provides customers direct secure access to their own patent application status information, as well as to general patent information

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publicly available. EFS allows customers to electronically file patent application documents securely via the Internet. EFS is a system for submitting new utility patent applications and pre-grant publication submissions in electronic publication-ready form. EFS includes software to help customers prepare submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.



B.P.Y  
02 April 2007



BRIAN P. YENKE  
PRIMARY EXAMINER